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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,130

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207 7590 05/09/2007  
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EXAMINER

SRIVASTAVA, KAILASH C

ART UNIT

PAPER NUMBER

1657

MAIL DATE

DELIVERY MODE

05/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/501,130

Applicant(s)

AMIJI ET AL.

Examiner

Dr. Kailash C. Srivastava

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-14 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Amendment and response filed 20 February 2007 to Office Action mailed 16 January 2007 is acknowledged and entered.
2. The Art Unit Location for your application under prosecution at the United States Patent and Trademark Office (i.e., USPTO) has been changed to Art Unit 1657. To aid in correlating any papers for this application (i.e., 10/501,130), all further correspondence regarding this application should be directed to Art Unit 1657.
3. The assigned Examiner to your application under prosecution at the USPTO is Dr. Kailash C. Srivastava. To aid in correlating any papers for this application (i.e., 10/501,130), all further correspondence regarding this application should be directed to Examiner Kailash C. Srivastava in Art Unit 1657.

## Claims Status

4. Claims 24-25 have been added.
5. Claims 15 and 21-23 have currently been withdrawn.
6. Claims 16-20 have currently been amended.
7. Claims 1-25 are pending.

## Election /Restriction

8. Election with traverse of Group I, encompassing Claims 1-14 filed 20 February 2007 to Election Requirement in Office Action mailed 16 January 2007 is acknowledged and entered. The traversal is on the ground (s) that independent Claim 15 drawn to "microencapsulated catalytic system" encompassed in Group II of the Election Requirement mailed 16 January 2007 is "just a preferred embodiment of the immobilized catalytic system of Claim 1".

Originally presented, but currently withdrawn Claim 15 is an independent Claim. Additionally, Claim 15 is drawn to limitations (e.g., "microencapsulated catalytic system comprising a central core"),

that are not encompassed within the limitations of the independent claim 1 and sharing elements in common (e.g., catalytic system) does not make a special technical feature common.

Applicants' arguments cited *supra* have been fully and carefully considered, but are not found persuasive because of the reasons discussed above. Therefore, the restriction requirement presented in Office Action mailed 16 January 2007 is proper and is adhered to.

9. Newly submitted Claim 24, as admitted on record by the applicants (see Remarks filed 20 February 2007, Page 8, Lines 15-16) incorporates the subject matter that was originally presented in currently withdrawn Claim 15. Claims 15-23 were encompassed in Group II invention in the Office Action mailed 16 January 2007. Group II invention is non-elected for further prosecution (See Remarks, Page 8, Lines 12-13). As discussed above, the subject matter claimed in withdrawn Claim 15 and said subject matter now incorporated in Claim 24 still comprises limitations that are different from the subject matter claimed in Claim 1. Since applicants have received an action on the originally presented invention encompassed in Claims 15-20 and now incorporated in Claims 24-25 and in Claims depending from Claim 24, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-20 and 24-25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR §1.142(b) and MPEP § 821.03.

10. Upon further consideration, the invention Claimed in elected Claims 1-14 contains the following groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. Restriction to one of the following inventions is required under 35 U.S.C. 121 and 372.

- Group I, consisting of claims 1-5 and 9, drawn to an "immobilized catalytic system" comprising neutral or an-ionic carrier polymer mixed with said catalytic entity and further comprising a screening layer of a cationic polymer matrix over the carrier layer, wherein said cationic matrix layer prevents passage of said catalytic entity.
- Group II, consisting of claims 1 and 6-8, drawn to another composition comprised of cross-linked neutral or an-ionic carrier polymer mixed with a catalytic entity, wherein said catalytic entity is mixed with said cross-linked carrier layer and said composition further comprises a screening layer of a cationic polymer matrix over the carrier layer, wherein said cationic matrix layer prevents passage of said catalytic entity.
- Group III, consisting of claims 1 and 10-14, drawn to another composition comprised of

neutral or an-ionic carrier polymer mixed with a catalytic entity, wherein said catalytic entity is mixed with said neutral or anionic carrier layer and said composition further comprises a screening layer of a cross-linked cationic polymer matrix over the carrier layer, wherein said cationic is covalently cross-linked and said cross-linked cationic matrix layer prevents passage of said catalytic entity.

### **Inventions are Independent and Distinct**

11. The inventions listed as Groups I-III each are each drawn to three different compositions. Said inventions despite sharing a common item, i.e., the catalytic entity layered with a neutral or anionic carrier layer and further layered with a cationic polymer matrix do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical features of the invention in group I composition is that the catalytic entity can not passage through the cationic matrix layer, but the reactants for said catalytic entity and the products of said catalytic entity- reactants reaction can pass through said neutral, anionic and cationic matrix layers.

Giving the broadest interpretation from the claim language, the special technical feature of the invention in Group II, encompassing Claims 1 and 6-8 is the *cross-linked neutral or anionic carrier polymer constituting the layer* with said catalytic entity, whereas the special technical feature of the composition in inventive Group III is the covalently cross-linked cationic polymer matrix. Thus, each one of the three inventive groups outlined above, despite sharing common components have a different functionality to each one of them because of absence of cross linked polymer matrices in Group I invention, Cross linked Anionic or neutral polymer in Group II invention composition and cross linked cationic polymer matrix in the composition constituting Group III invention. Thus, each of the compositions are functionally different from the other. Since no special technical feature exists among the inventions in groups I-III, there is no unity of invention.

### **Species Election**

12. This application contains claims directed to different composition comprised of a variety of ingredients. Therefore, if the applicants elect invention in any one of he Groups I-III above, the applicants must also make election of species by electing only one component from each of the categories listed below as applicable to applicants' elected invention for further prosecution.

- a. Only one catalytic entity among: proteins, antibodies, ribonucleic acids, RNA aptamers, metal catalytic systems, or other chemical entities, cellular components, whole cells, tissues and microorganisms listed in Claim 3;
- b. Only one neutral or anionic carrier polymer among those listed in Claims 4-5;
- c. Only one cationic carrier polymer among those listed in Claim 9; and
- d. Only one covalent cross-linking agents among those listed in Claims 11 and 13-14.

13. Applicants are advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR §1.143).


In accordance with 37 CFR §1.499, Applicants are required that a reply to this requirement must also include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election of an invention along with the election of a species. Upon the allowance of a generic claim, Applicants will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR §1.141. If claims are added after the election, Applicants must indicate which are readable upon the elected species [MPEP § 809.02(a)].

14. Applicants are reminded that upon the cancellation of claims to a non-elected invention and species, the inventorship must be amended in compliance with 37 CFR §1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR §1.48(b) and by the fee required under 37 CFR §1.17(I).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 7:30 A.M. to 6:00 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached at (571)-272-0925 Monday through Thursday 7:30 A.M. to 6:00 P.M. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (i.e., PAIR) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (i.e., EBC) at: (866)-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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3 May 2007